

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Chang Wook KIM

Customer No.: 30827

Application No.: 10/567,850

Confirmation No.: 7333

Filed: February 10, 2006

Art Unit: 3743

For: A DRUM OF LAUNDRY DRYER

Examiner: Stephen Michael Gravini

**Mail Stop Appeal Brief—Patents**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Sir:

In response to a Final Office mailed on March 15, 2010, and in support of a Notice of Appeal filed on May 6, 2010, Appellant hereby submits this Appeal Brief.

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This brief contains items under the following headings as required by 37 C.F.R. § 41.37(c):

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**I. REAL PARTY IN INTEREST**

The real party in interest for this appeal is: LG Electronics Inc., the assignee of record.

## **II. RELATED APPEALS AND INTERFERENCES**

Appellant states that they have no knowledge of any prior or pending appeals, judicial proceedings, or interferences, which may be related to, directly affect or be directly affected by, or have a bearing on the Board's decision in this appeal.

### **III. STATUS OF CLAIMS**

Total Number of Claims in the Application: 15

There are 12 claims pending in the application.

Current Status of Claims:

Claims canceled: 4, 6, and 8

Claims withdrawn from consideration but not canceled: None

Claims pending: 1-3, 5, 7, and 9-15

Claims allowed: None

Claims objected to: None

Claims rejected: 1-3, 5, 7, and 9-15

Claims on Appeal: 1-3, 5, 7, and 9-15

#### **IV. STATUS OF AMENDMENTS**

Appellant states that no amendments to the claims were filed subsequent to the Final Rejection.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

Independent claim 1 is directed to a drum assembly of a laundry dryer, an embodiment of which is shown in Figures 2-4. *Specification*, page 6, lines 8-13. As shown in Figures 2 and 3, the drum assembly of a laundry dryer includes a drum main body 210, which is formed in the cylindrical shape through a seaming-welding process. *Specification*, page 6, 10-14, and page 10, lines 21-23. The seam-welding is located only on the cylindrical portion of the drum main body 210. *Specification*, page 10, line 21 to page 11, line 4. The drum assembly includes a drum head 220 attached on a first end of the drum main body 210. *Specification*, page 6, 10-14. As shown in Figures 2 and 3, the drum head 220 includes a main head rim 221 being coupled to a first end of the drum main body 210 and having a predetermined width in a direction toward a rotating shaft of the drum main body 210. *Specification*, page 7, line 21 to page 8, line 1. The drum head 220 also includes a support sleeve 222 bent outwards from an end of the main head rim 221. *Id.*

The drum assembly also includes a drum rear wall 230 couple to a second end of the drum main body 210. *Specification*, page 6, lines 10-14. The drum rear wall 230 is provided with a plurality of hot wind introducing holes 231. *Specification*, page 8, lines 21-22. The drum assembly further includes a lift 240, which is coupled to an inner circumference of the drum main body 210 to lift laundry. *Specification*, page 6, line 20.

As shown in Figure 2, the cylindrical portion of the drum main body 210 is provided with a penetration hole in a predetermined distance apart from the first end and the second end of the drum main body 210. *Specification*, page 7, lines 7-8. As shown in Figures 2 and 4, the lift 240 is provided at a bottom surface with a positioning projection 260 to be inserted into the penetration hole. *Specification*, page 9, lines 18-20.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Whether the present application has an effective filing date of February 10, 2006 or June 5, 2004.
2. Whether the rejection of claims 1-3, 5, 7, and 9-15 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,105,533 to Boos (*Boos*) in view U.S. Patent No. 2,932,091 to Day (*Day*) and U.S. Patent No. 5,371,956 to St. Louis (*St Louis*) is proper.
3. Whether the rejection of claims 1-3, 5, 7, and 9-15 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 7,395,612 in view *Boos* is proper.



## VII. ARGUMENT

### A. The effective filing date of the present application is June 5, 2004.

The present application claims the benefit of International Application No. PCT/KR2005/001539, filed May 25, 2005 (in English and designating the U.S.) which claims priority to Korean Application No. 2004-0041111, filed on June 5, 2004. Thus, the present application has an effective filing date of June 5, 2004.

In an Office Action dated March 17, 2009, the Office rejected claims 1-3, 5, 7, and 9-15 under 35 U.S.C. §103(a) citing U.S. Patent No. 7,194,824 to Wang (*Wang*) and two other references. In a Response filed on June 15, 2009, Appellant explained that *Wang*, with a U.S. filing date of July 23, 2004, does not constitute prior art under 35 U.S.C. §103(a), as the effective filing date of present application is June 5, 2004. In an Office Action dated September 30, 2009, the Office stated that present application has an effective filing date of February 10, 2006 and *Wang* qualifies as a prior art reference.

Appellant's representative conducted a telephone interview with the Patent Examiner on October 27, 2009, and requested that the Office withdrawal the rejection based on *Wang*. The Office issued a Office Communication on November 2, 2009, and maintained that *Wang* qualifies as a prior art reference.

Appellant filed a Pre-Appeal Brief Request for Review on December 18, 2009, and explained again that *Wang* does not constitute prior art under 35 U.S.C. §103(a). The Office issued a Notice of Panel Decision from Pre-Appeal Brief Review on January 29, 2010, and indicated that the rejection is withdrawn and a new Office Action will be mailed.

In a Final Office Action dated March 15, 2010, the Office apparently withdrew *Wang* as prior art reference, and stated that "Applicant asserts that [U.S. Patent 5,371,956 to] St. Louis should be withdrawn as prior art reference ... St Louis ... qualifies as a prior art reference with respect to the current filed application. The current application has an effective filing date of February 10, 2006." *Office Action*, pages 4-5. Appellant has not argued that *St. Louis* does not qualify as a prior art reference. In fact, Appellant argued that *Wang* does not qualify as a prior art reference, and the Office did not directly address *Wang*. More importantly, the Office

maintained the assertion that the present application have an effective filing date of February 10, 2006.

According to M.P.E.P. §1893.03(b), “[a]n international application designating the U.S. has two stages (international and national) with the filing date being the same in both stages. Often the date of entry into the national stage is confused with the filing date. It should be borne in mind that the filing date of the international stage application is also the filing date for the national stage application.” 35 U.S.C. §365(b) provides that “[i]n accordance with the conditions and requirements of section 119(a) of this title and the treaty and the Regulations, an international application designating the United States shall be entitled to the right of priority based on a prior foreign application, or a prior international application designating at least one country other than the United States.” Here, the Office failed to follow the patent law and reached the incorrect conclusion.

**B. The rejection of claims 1-3, 5, 7, and 9-15 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,105,533 to Boos (*Boos*) in view of U.S. Patent No. 2,932,091 to Day (*Day*) and U.S. Patent No. 5,371,956 to St. Louis (*St. Louis*) is improper and should be reversed, as the combined teaching of *Boos*, *Day*, and *St. Louis* fails to teach or suggest all the elements of claims 1-3, 5, 7, and 9-15.**

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. See MPEP §2143; *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**1. Independent Claim 1**

*Boos* fails to teach or suggest all the elements of claim 1. Claim 1 recites a drum assembly of a laundry dryer, and *Boos* relates to “a drum for holding and moving a particulate material which serves in particular for forming a drug.” *Boos*, column 1, lines 8-10. The drum of a laundry dryer is completely different from the drum for forming a drug. For example, claim

1 recites, “a drum rear wall coupled to a second end of the drum main body and provided with a plurality of hot wind introducing holes.” The laundry dryer is designed to dry the laundry using the hot wind while lifting and dropping the laundry loaded in a drum rotating by a driving motor. *Specification*, page 1, lines 12-17. The hot wind absorbs and removes moisture by exhaust and condenser. *Id.* *Boos* fails to teach “hot wind introducing holes.” Instead, *Boos* discloses that “air is fed by the gas conduction and/or gas transport means 33 through the gas pipe 36 and sucked out through the gas pipe 37, as indicated by the arrows 45, 46 in FIG. 1.” *Boos*, column 7, lines 30-32. Please note, the gas conduction/transport means 33, gas pipe 36, and gas pipe 37 are located on the top of the drum. Then, “partly liquid spray material ... is sprayed from time to time onto the [drug] particles [in the drum] by the spray device 39.” *Boos*, column 7, line 37-40. The air makes it “possible first to agglomerate the particles to give larger particles—for example pellets—and then also to provide these with a coating.” *Boos*, column 7, lines 42-45.

*Day* also fails to teach or suggest all the elements of claim 1. Claim 1 recites a drum assembly of a laundry dryer, and *Day* relates to “a thin-shelled drum form of dryer adopted to be heated internally for the drying of a web of paper passing over the external surface of the drum as in the drying end of the a paper-making machine.” *Day*, column 1, lines 17-20. The drum of a laundry dryer is completely different from the drum of a paper-making machine. For example, claim 1 recites, “a drum rear wall coupled to a second end of the drum main body and provided with a plurality of hot wind introducing holes.” *Day* fails to teach “hot wind introducing holes.” Instead, *Day* discloses that “[a] hollow thick-walled pipe 14 co-axial and co-extensive with the roll 13 serves as duct for inlet steam.” *Day*, column 4, lines 4-6. In other words, *Day* teaches introducing steam into the drum of the paper-making machine, not removing moisture from the drum.

*St Louis* also fails to teach or suggest all the elements of claim 1. Claim 1 recites, “a drum rear wall coupled to a second end of the drum main body and provided with a plurality of hot wind introducing holes.” *St Louis* fails to teach or suggest at least this element of claim 1. In fact, *St Louis* discloses a blower 20, and the blower 20 is located under the bottom of the dry 16. *St Louis*, column 2, lines 31-33, and Figure 1.

Accordingly, the combined teaching of *Boos*, *Day*, and *St. Louis* fails to teach or suggest all the elements of claim 1. Claim 1 is allowable over the combined teaching of *Boos*, *Day*, and *St. Louis*.

## **2. Dependent Claims 2-3, 5, 7, and 9-15**

Dependent claims 2-3, 5, 7, and 9-15 variously depend from claim 1 and incorporate all the elements of claim 1. Accordingly, claims 2-3, 5, 7, and 9-15 are also allowable over the combined teaching of *Boos*, *Day*, and *St. Louis* for at least the same reasons as claim 1.

### **C. The rejection of claims 1-3, 5, 7, and 9-15 on the ground of nonstatutory obviousness-type double patenting is improper and should be reversed, as the Examiner failed to provide analysis required by M.P.E.P.**

It is noted that “[t]he examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.” M.P.E.P. §2142. Further, under M.P.E.P. §804(II)(b)(1), “Any obviousness-type double patenting rejection should make clear: (A) The differences between the inventions defined by the conflicting claims - a claim in the patent compared to a claim in the application; and (B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim at issue is anticipated by, or would have been an obvious variation of, the invention defined in a claim in the patent.”

The Final Office Action does not follow this approach. Rather, The Examiner conclusively states “Claims 1-3, 5, 7, and 9-15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of U.S. Patent No. 7,395,612 in view of *Boos*.” The Examiner has not provided any explanation to back this conclusion. Thus, the Examiner has failed to meet the initial burden that is required to factually support a *prima facie* conclusion of obviousness, let alone clearly addressing the supporting facts to establish a prima facie conclusion of obviousness-type double patenting. As a result, the Examiner’s conclusions regarding obviousness type double patenting are improper.

Furthermore, *Boos* relates to “a drum for holding and moving a particulate material which serves in particular for forming a drug.” *Boos*, column 1, lines 8-10. It would not have been obvious to one of ordinary skill the art to combine the teaching of drum for forming a drug with that of laundry dryer.

Accordingly, the double patenting rejection of claims 1-3, 5, 7, and 9-15 is improper, and claims 1-3, 5, 7, and 9-15 are not obvious over claims 1-33 of U.S. Patent No. 7,395,612 in view of *Boos*.

### **CONCLUSION**

For all the above reasons, Appellant respectfully requests that this Honorable Board find as follows:

1. The present application has an effective filing date of June 5, 2004.
2. The rejection of claims 1-3, 5, 7, and 9-15 under 35 U.S.C. §103(a) as being unpatentable over *Boos* in view *Day* and *St Louis* is improper.
3. Whether the rejection of claims 1-3, 5, 7, and 9-15 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 7,395,612 in view *Boos* is improper.

The Claims Appendix contains the set of claims involved in the present appeal. The Office is hereby authorized to charge any fees, including the fees required under 37 C.F.R § 1.17(f), any additional fees required under 37 C.F.R. §§ 1.16, 1.17, and/or 1.136, for any necessary extension of time, or any other fees required to complete the filing of this Appeal Brief, to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

Dated: May 25, 2010

Respectfully submitted,

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**CLAIMS APPENDIX**

1. A drum assembly of a laundry dryer, comprising:
  - a cylindrical drum main body that is formed through a seam-welding process, the seam-weld being located only on the cylindrical portion of the drum main body;
  - a drum head comprising a main head rim having a predetermined width in a direction toward a rotating shaft of the drum main body, the main head rim being coupled to a first end of the drum main body and provided with a plurality of elevated portions, and a support sleeve bent outwards from an end of the main head rim;
  - a drum rear wall coupled to a second end of the drum main body and provided with a plurality of hot wind introducing holes; and
  - a lift coupled to an inner circumference of the drum main body to lift the laundry, wherein the cylindrical portion is provided with at least one penetration hole that is a predetermined distance apart from the first end and the second end of the drum main body, and wherein the lift is provided at a bottom surface with a positioning projection to be inserted into the penetration hole.
2. The drum assembly according to claim 1, wherein the elevated portion is formed through a forming process.
3. The drum assembly according to claim 1, wherein the drum main body is provided with a welding portion that is depressed into the drum main body to smoothly form the outer circumference of the drum main body.
4. (Canceled)
5. The drum assembly according to claim 1, wherein a portion where the penetration hole is formed is depressed from an outer circumference of the drum main body.
6. (Canceled)

7. The drum assembly according to claim 1, wherein the drum main body, the drum head and the drum rear wall are coupled to each other through a seam-welding process.
8. (Canceled)
9. The drum assembly according to claim 1, wherein an inner circumference defining the penetration hole in which the positioning projection is inserted is bent outward of the drum main body.
10. The drum assembly according to claim 1, wherein a portion where the penetration hole is formed is depressed to define a conflicting prevention groove.
11. The drum assembly according to claim 10, wherein a length of the positioning projection passing through the penetration hole is equal to or less than a depth of the conflicting prevention groove.
12. The drum assembly according to claim 1, wherein an extreme end of the positioning projection passing through the penetration hole is located to be lower than an outer circumference of the drum main body.
13. The drum assembly according to claim 1, wherein the lift is fixed on the drum main body by a coupling member penetrating the coupling hole and inserted in a boss, the boss being provided in the inside of the lift.
14. The drum assembly according to claim 13, wherein a head portion of the coupling member is located to be lower than an outer circumference of the drum main body.
15. The drum assembly according to claim 1, wherein the plurality of elevated portions are positioned perpendicular to the support sleeve.



**EVIDENCE APPENDIX**

**Evidence:**

None.

**RELATED PROCEEDINGS APPENDIX**

**Related Proceedings:**

None.